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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,048	01/22/2004	Ralf Herz	Micronas.7867	3796

7590 03/23/2006
Gauthier & Connors LLP
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EXAMINER

HEIN, GREGORY P

ART UNIT PAPER NUMBER

2188

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,048

Applicant(s)

HERZ ET AL.

Examiner

Gregory P. Hein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. Claims 1 – 10 were received as part of a preliminary amendment. Claim 1 is included in the amendment. The claims of the application should be submitted as a separate document.

Claim Objections

3. Claim 9 is objected to because of the following informalities: Claim 9 reads "...a plurality of storage devices which is switchably..." Examiner suggests "...a plurality of storage devices which are switchably..." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

6. Claim 6 recites "to compare the address with the memory address of the memory" which is vague and indefinite language.

7. Claim 8 states "comprising a or the logic device." It is unclear if applicant intends previously said logic device or a previously unknown logic device.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3 - 5, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,202,856 (Glider et al.)

10. As per claim 1, Glider teaches:

At least one memory (M) to store data (d), information and/or addresses,
a memory connection (B) including a port (B0) to connect the memory (M) to a first bus (D0) of a multi-bus architecture (P, D0, D1, R) (Glider Col. 1 lines 51 – 57),

wherein the memory connection (B), the port (B0), and the first bus (P) have data lines (DL) to transmit the data (d), and, as required, transmit addresses (a) and/or control information to control the memory (M) (Glider Col. 1 lines 58 - 62),

characterized by a switching device (SW, MTR, CU, ARB, MOD) to selectively connect the memory connection (B) to one of the buses (D1, P, R) for a memory access to effect transmission of data, addresses, and/or control information from or to this bus (Glider Col. 1 lines 57 - 61.)

As per claim 3, Glider teaches:

An analyzer (ARB, CU) connected on the input side of the memory (M) for analyzing addresses on the address lines (AL) assigned to the buses and/or the memory for memory accesses, and for appropriately switching the switching device (SW) to one of the corresponding buses (P, D0, D1, R) (Glider Col. 2 lines 33 - 54.)

As per claim 4, Glider teaches:

The analyzer (ARB, CU) is designed for analyzing a part of the addresses, and for switching and assigning a memory access for address segments smaller than the word width of a bus transmitting the addresses or of the address lines (AL) (Glider Col. 5 lines 1 - 13.)

As per claim 5, Glider teaches:

An adjustable separator device, specifically a programmably adjustable separator device (MTR) to store a memory address of the memory (M) for analysis by the analyzer (ARB, CU) (Glider Col. 5 lines 5 - 13).

As per claim 9, Glider teaches:

A plurality of storage devices which is switchably connected to one bus each within a multi-bus architecture having a plurality of busses (P, D0, D1, R) (Glider Col. 3 lines 30 - 43).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,202,856 (Glider et al.) and further in view of U.S. Pre-Grant Publication 2003/0105793 (Guttag et al.)

As per claim 7:

Glider teaches the limitation of the parent claims, but does not teach including a modifier device capable of processing different data types and/or access types that have been applied to the modifier device through data lines, sub-address lines, and/or access signal.

Guttag teaches a single instruction, multiple data mode of operation which can process different data based on a single instruction (Guttag ¶98.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine this

feature of Guttag with Glider since the combination thereof allows Glider to process different data using a single instruction (Guttag ¶¶98 lines 1 – 3.)

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,202,856 (Glider et al.) and further in view of U.S Patent 6,098,136 (Okazawa et al.

Glider teaches the limitation of the parent claim, but does not teach a one clock cycle interrupt when memory access is to be effected.

Okazawa teaches a multi-bus system control signal that causes a one-cycle wait state when memory accesses are to be effected (Okazawa Col. 10 lines 22 – 25.) Additionally, the control signal, ACK, causes a one-cycle interrupt (Okazawa Col. 11 lines 43 – 45.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine this feature of Okazawa with Glider since the signal provides a confirmation of successful completion of memory read or write operations (Okazawa Col. 10 lines 22 – 25.)

Conclusion

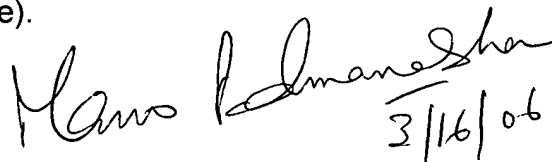
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory P. Hein whose telephone number is 571-272-4180. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Handwritten signature of Mano Padmanabhan, dated 3/16/06.

Gregory Hein
03/15/2006

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER